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DECLASS REVIEW by NIMA/DOD

March 29, 1962

[REDACTED]

Confirming our telephone quotation of this date we would like to propose for your requirements a [REDACTED] Type 829A Comparator specially modified for the measurement of 6" diameter spools of 70mm film. Used in this application the travel of the comparator will be limited to 70mm in both X and Y coordinates. With the special film stage removed the measuring travel will be 100mm by 150mm.

The main screw (X axis) will be 1mm pitch, 5mm lead, having a 5 multiple thread. The digitizing head will be geared for 1000 counts per turn of the dial and the dial will have a least count of .005mm. The stage will advance 5mm travel per turn of the X screw.

The secondary screw (Y axis) will have 1/2mm pitch, 2-1/2mm lead, having a 5 multiple thread. Its digitizing head will be geared for 500 counts per turn and the dial will have a least count of .005mm. The stage will advance 2-1/2mm travel per turn of the Y screw.

Motorized measuring travel of X axis (to left and right of operator) would be at a rate of approximately 12mm per second. This travel would be across the width of the film.

Optical system and light source will be essentially the same as that made for the [REDACTED] Type 422E Comparator. In this projection system the image magnification at the screen would be 7-1/2X and the instrument should be operated in a room with subdued lighting.

There will be adaptation provided for [REDACTED] Magnetic Reading Heads Type 15A to each screw. Each pulse of the head will represent .005mm motion of the stage.

Film stage having manual film advance for 6" spools of 70mm film will be provided. Maximum area exposed to view will be 70mm by 70mm. The pressure plate will be lifted by means of a solenoid operated from a foot switch. Plus or minus 2° of rotation will be provided for alignment of the film

[redacted]
stage.

This instrument, except for the illuminator, will be mounted on a cast Meehanite sub-base and fastened to a steel 24" x 36" table with special table height of 26". The illumination unit will be fastened to the rear of this table.

Delivery of this instrument is 30 days after receipt of order at [redacted]

[redacted] The price, FOB [redacted] and terms 1/2 of one per cent 10 days, net 30 days apply. The quotation is firm for 30 days.

In the interest of greatest reduction of time to delivery, we are using a presently available optical viewing system support arm with a spacer block at the base and the projection system. If delivery time can be increased to 50 - 60 days, this can be cast as a single unit from a new pattern. [redacted]

[redacted] regards the spacer block as a satisfactory technical solution for the format size and required accuracy of measurement.

Very truly yours,
[redacted]

BWW:ejd